HD1695S383C61994c.2

PROPERTY OF [illegible] VALLEY
WATER [illegible]
5750 [illegible]
San Jose, [illegible]

SANTA CLARA VALLEY WATER DISTRICT

A Conceptual Study of
HETCH HETCHY WATER PROJECT MASTER CONTRACT

March 1994

Water Resource Associates
Consulting Engineers

CONTENTS

LIST OF TABLES vii

EXECUTIVE SUMMARY S-1
- Purpose S-1
- Existing Hetch Hetchy Supply S-2
- Opinions of Water Agencies S-3
- Relevant Legislation, Agreements and Regulations S-4
- Advantages and Disadvantages S-5
- Feasibility S-6
- Alternative Strategies for Master Contract S-6
- Recommendations S-7

CHAPTER 1. INTRODUCTION 1-1
- Terminology 1-1
- Purpose 1-1
- Scope 1-2

CHAPTER 2. EXISTING HETCH HETCHY SUPPLY 2-1
- Water System 2-1
- Water Quality 2-1
- Water Agencies 2-2
- Water Supply Contracts 2-3

CHAPTER 3. OPINIONS OF WATER AGENCIES 3-1

Advantages 3-1

Disadvantages 3-1

Other Concerns and Issues 3-2

CHAPTER 4. LEGISLATION, AGREEMENTS AND REGULATIONS 4-1
- Raker Act 4-1
- Settlement Agreement 4-1
- Warren Act Amendment 4-4
- Central Valley Project Improvement Act 4-4
- Assembly Bill 97 4-6
- Water Right Decision 1630 4-6
- Federal Bay-Delta Standards 4-7
- SFWD Connection to South Bay Aqueduct 4-8
- Water Conservation 4-8
- Water Reclamation 4-9

CHAPTER 5. ALTERNATIVE STRATEGIES FOR MASTER CONTRACT 5-1
  Alternative 1 -- District as Wholesaler but not SFWD Customer 5-1
  Alternative 2 -- District as Wholesaler and SFWD Customer 5-2

CHAPTER 6. CONCLUSIONS 6-1
  Water Quality 6-1
  Opinions of Water Agencies 6-1
  Raker Act 6-2
  Settlement Agreement 6-2
  Warren Act Amendment 6-2
  Central Valley Project Improvement Act 6-2
  Assembly Bill 97 6-3
  Water Right Decision 1630 6-3
  Federal Bay-Delta Standards 6-3
  SFWD/District Interconnection 6-3
  Advantages and Disadvantages 6-3
  Feasibility 6-4

CHAPTER 7. RECOMMENDATIONS 7-1

APPENDIX A. REFERENCES

APPENDIX B. ABBREVIATIONS

LIST OF TABLES

S-1 Water Purchases, FY 1993 .... S-3

2-1 Water Purchases, FY 1993 2-2
2-2 Annual Water Deliveries 2-4

4-1 Mandatory Drought Water Conservation Programs 4-9

EXECUTIVE SUMMARY

The Santa Clara Valley Water District (District) supplies surface water and groundwater to municipalities, water companies and other customers within Santa Clara County. The District obtains water from the federal Central Valley Project (CVP), the California State Water Project (SWP), and from local surface and groundwater sources.

Within Santa Clara County, the City and County of San Francisco, through the San Francisco Water Department (SFWD) and Hetch Hetchy Water and Power, supplies water to portions of the cities of Milpitas, Mountain View, Palo Alto, San Jose, Santa Clara, and Sunnyvale; and to Purissima Hills Water District and Stanford University. SFWD also supplies water to Moffett Field Naval Air Station and Agnews Developmental Center, but SFWD considers these to be direct retail customers rather than suburban purchasers.

The water that SFWD supplies in Santa Clara County derives from the Hetch Hetchy Reservoir in the Sierra Nevada and from two reservoirs in Alameda and Santa Clara counties. The water delivered in the South Bay is a blend of the supplies with about 80 percent of the water from Hetch Hetchy Reservoir.

SFWD administers the water supply to San Francisco customers in Santa Clara County. Nevertheless, the water supply is often termed "Hetch Hetchy" because of the source of the majority of the water.

Purpose

For many years the District has felt that the Hetch Hetchy water supplies should be managed in concert with the District's supplies to maximize long-term reliability in the County. This has been emphasized by the following circumstances:

- Some retailers believe that, during the recent drought, water agencies met the District's mandatory conservation goals by excessive conservation of Hetch Hetchy supplies at the expense of District supplies.
- Hetch Hetchy supplies benefit from the District's ultra-low-flush toilet and low-flow showerhead programs, but SFWD does not contribute financially to them.
- Wastewater reclamation projects, sponsored by the District or District retailers, will benefit the Hetch Hetchy system at no cost to SFWD.
- Water quality programs, including groundwater quality protection and non-point source control, are funded in part by the District's water charges. Users of Hetch

Hetchy water benefit from these programs, yet they do not pay for them through the water charges.

- A potential system intertie, coupled with the opportunity for SWP and CVP transfers, would add operational flexibility and long-term reliability.

The purpose of this report is to present the results of an assessment of the feasibility of a master contract for Hetch Hetchy water in Santa Clara County and to make recommendations for accomplishing such a contract.

Existing Hetch Hetchy Supply

The existing water system is composed of the facilities of Hetch Hetchy Water and Power and the San Francisco Water Department. Water from the Sunol Valley Water Filtration Plant commingles with Hetch Hetchy water before flowing to the South Bay area. Of the total flow across the South Bay, about 80 percent is from Hetch Hetchy Reservoir.

The water distributed by SFWD is low in hardness and total dissolved solids--which makes it moderately corrosive. Corrosive water in contact with lead or copper plumbing often is responsible for the presence of high levels of lead and copper in drinking water.

Three agencies receiving Hetch Hetchy water in the South Bay have exceeded action levels for lead that the U.S. Environmental Protection Agency (EPA) has established. The corrosive water also causes high levels of metals in the effluent discharged from wastewater treatment plants. Both of these problems are a concern of the District.

SFWD has conducted treatment studies to reduce the corrosiveness of Hetch Hetchy water and is having discussions with EPA on an acceptable treatment method that would improve the water quality for both the City and the suburban purchasers.

The safe yield for the combined SFWD and Hetch Hetchy supply system, that is the yield available in a dry year, has recently been determined to be 242 million gallons per day (mgd) (271,000 acre-ft/yr). The ultimate combined demand on the SFWD and Hetch Hetchy supply system is anticipated to be 285 mgd (the Supply Assurance of 184 mgd and the City's demand of 101 mgd). Thus, the safe yield is only 85 percent of the ultimate combined demand.

There are eight water agencies in Santa Clara County that purchase all, or a portion, of their water requirements from SFWD. Table S-1 shows the agencies and their water purchases during the period of July 1992 through June 1993. The agencies purchased 51,220 acre-ft from SFWD.

During this 12-month period, SFWD delivered 149,396 acre-ft to all of its suburban purchasers. Thus, 34 percent of total sales were to purchasers in Santa Clara County. The 51,220 acre-ft of water purchased from SFWD amounts to 21 percent of the total sales by the District to its customers during the same period.

Table S-1. Water Purchases, FY 1993

Agency	Water purchases from			
	San Francisco		District	
	mgd	acre-ft/yr	mgd	acre-ft/yr
City of Milpitas	8.2	9,141	0.0	0
City of Mountain View	9.1	10,167	1.3	1,496
City of Palo Alto	10.8	12,119	0.0	2
Purissima Hills Water District	1.4	1,551	0.0	0
San Jose Municipal Water System	2.3	2,583	9.7	10,917
City of Santa Clara	3.9	4,371	17.4	19,452
Stanford University	2.3	2,562	0.1	126
City of Sunnyvale	7.8	8,726	11.8	13,165
Total	45.8	51,220	40.3	45,158

As required by the Settlement Agreement (described in Chapter 4), each suburban purchaser has entered into an individual Water Supply Contract with SFWD for its water purchases. The term of each contract is 25 years, ending June 30, 2009. Except for the cities of San Jose and Santa Clara, water deliveries are permanent and non-interruptible. For San Jose and Santa Clara, water deliveries are temporary and interruptible, with at least a two-year notice before termination.

Opinions of Water Agencies

Staff level discussions were held with the eight water agencies in Santa Clara County that receive water from SFWD and with two retail agencies that receive water from the District but not from SFWD.

The water agencies in Santa Clara County that presently purchase water from SFWD are favorable toward doing business with the District. They feel that they have better communication with the District and receive more information than from SFWD.

The major concerns are water quality and the points of delivery. Several of the water agencies have obligations to supply Hetch Hetchy water to their customers. They would not accept a substitute or blend of water. Furthermore, since the water distribution systems are constructed for the present delivery schemes, all but one agency expressed a desire to have Hetch Hetchy water delivered at the existing SFWD turnouts.

The agencies are not clear on the effect of a master contract on their membership and participation in the Bay Area Water Users Association (BAWUA).

There is a general concern about the process for determining the water rates for SFWD water under a master contract, as the District has no methodology for calculating a "fair" rate comparable to that contained in the Settlement Agreement.

During a drought situation, the District would still have to coordinate its mandatory water conservation program with that of SFWD.

Relevant Legislation, Agreements and Regulations

Raker Act. This federal act grants rights-of-way and water rights to the City and County of San Francisco for the Hetch Hetchy water supply system in Yosemite National Park and adjacent Stanislaus National Forest. The act prohibits the City from selling Hetch Hetchy water for resale to corporations (e.g., private water companies), but permits sales to a municipality, a municipal water district, or an irrigation district. The City has justified sales to private water companies as being limited to the yield of local SFWD supplies. Because current sales to private water companies are near the yield of the local SFWD supplies, the District might not be free to sell Hetch Hetchy water to San Jose Water Company and Great Oaks Water Company. This might restrict the use of Hetch Hetchy water for distribution in the District's treated water system or for recharging the groundwater basin.

Settlement Agreement. This is an agreement between the City and County of San Francisco and the 30 suburban water agencies that purchase water from the City. It states the rights and obligations of both parties and is referenced by the individual water supply contracts between the City and each purchaser.

The City agrees in the Settlement Agreement that it will not sell water outside the City limits to any purchaser that was not purchasing water from the City on June 30, 1983, if the sales would impair the City's ability to fulfill the Supply Assurance of 184 mgd. Since the safe yield of Hetch Hetchy and local supplies (242 mgd) is currently less than the Supply Assurance plus City demand (285 mgd), it is highly unlikely that SFWD will make additional commitments for water deliveries.

The Water Supply Contract for each existing suburban purchaser prohibits the purchaser from delivering SFWD water outside the service area designated in its contract with SFWD. Thus, unless the eight water agencies in Santa Clara County that purchase SFWD water are released from that obligation of the Settlement Agreement, they could not deliver Hetch Hetchy water to the District if it were to be used outside the designated service areas.

The Settlement Agreement appears to prohibit Stanford University from joining a multi-party water district. It is not clear if this restriction would prohibit Stanford from entering into a joint agreement with the District to facilitate a master contract with SFWD.

The District might become subject to provisions of the Settlement Agreement in several ways--by becoming a signatory to a modified Agreement subject to the approval of all the suburban water purchasers or by entering into a separate agreement with SFWD.

In an agreement for Hetch Hetchy water, the District would have to define its service area for use of the purchased water. Thus, the District would state whether the limits are the combined limits of the eight agencies, or the whole county, or some other area.

Warren Act Amendment. The Reclamation States Emergency Drought Relief Act of 1991 removes the restriction on moving nonproject water through CVP facilities. This change provides options to both SFWD and the District for augmenting their water supplies during droughts.

Central Valley Project Improvement Act. This act establishes a $50 million annual habitat restoration fund and instructs the US Bureau of Reclamation to allocate annually 800,000 acre-ft of water to the environment. It permits the transfer of CVP water to a non-CVP water agency. With District assistance, SFWD could benefit from this new provision. This act will increase the cost of CVP water and decrease the amount of water available for water supply--even to existing contractors, such as the District.

Advantages and Disadvantages

Summarized below are potential advantages and disadvantages of a master contract.

Advantages

- Communications between Wholesaler and Retailer - Several of the retail agencies cite ease of communication with the District as an advantage of the District's being their wholesaler.
- Flexibility - The additional source of water would enhance the District's flexibility in source selection.
- Water Conservation and Water Reclamation - The District would be less restrictive in helping finance water conservation and water reclamation programs if it could receive Hetch Hetchy water that would become available through these programs.
- Water Management - A master contract would give the District control over all import water in the County.

  Water retailers would not have to do business with two wholesalers.

  A master contract between SFWD and the District would facilitate transfer of water through CVP and District facilities to the SFWD service area.
- Water Supply Reliability - The District's ability to manage all supplies, including Hetch Hetchy water that would become available through water conservation and water reclamation programs, would enhance the reliability of its water supplies.

Disadvantages

- Settlement Agreement - Negotiations with SFWD for a master contract might re-open other provisions of the Settlement Agreement.

- Water Management - Several agencies believe that a master contract would add another layer of bureaucracy to the SFWD water supply contracts.

- Water Quality - Because several of the water agencies have obligations to supply Hetch Hetchy water to their customers, they would not accept the addition of, or a blend of, water from the District.

- Water Rates - Requirements of the Settlement Agreement govern SFWD water rates. There are no similar requirements for determining District water rates. One agency wondered how the retailers would be protected against "unfair" District rates.

- Water Supply Reliability - An agency that presently receives water from both the District and SFWD believed that, with a master contract and District control, Hetch Hetchy water would no longer be an "independent" supply to its water system.

Feasibility

It is our opinion that a master contract for Hetch Hetchy water in Santa Clara County is a feasible concept. The opinions of the retail water agencies and current legislation, agreements and regulations do not suggest opposition to such a contract.

Alternative Strategies for Master Contract

Two alternative strategies are formulated for a master contract. Under both alternatives, the District would act as a wholesaler of Hetch Hetchy water to the eight water agencies presently receiving water from SFWD within Santa Clara County.

Because of the water quality concerns of the water agencies (i.e., blending District water with Hetch Hetchy water), the present SFWD transmission system would continue to deliver water to the agencies. SFWD would continue to read its water meters, but would bill the District for the amounts used by the agencies. The District would bill the agencies.

The District's service area for Hetch Hetchy water would be defined in a new agreement with SFWD. Ideally, the service area would encompass the entire District. Thus, the District would have the flexibility of using Hetch Hetchy supply to its best advantage, which may include wheeling it through CVP facilities. The District would accept the Hetch Hetchy water into its own raw, or treated, water supply systems for direct delivery or groundwater recharge.

The scenarios and major issues of two alternative strategies for a master contract are described below.

Alternative 1--District as Wholesaler but not SFWD Customer. The District and SFWD would have an agreement that would grant to the District delivery of water equal to the total permanent delivery entitlements of the six water agencies with permanent supplies. The agreement would also grant the District temporary delivery of water equal to the amounts granted to San Jose and Santa Clara on a temporary and interruptible basis.

Alternative 2--District as Wholesaler and SFWD Customer. This scenario would be similar to Alternative 1, except that the District would also receive water from SFWD through one or more turnouts on a temporary and interruptible basis. The District would accept the Hetch Hetchy water into its own raw, or treated, water supply system or would use it to recharge groundwater.

Major Issues. The whole concept of a master contract hinges on the Raker Act permitting such an arrangement. It could be argued that the role of the District would be no different from that of other water districts presently supplied by SFWD.

A master contract might require a revision to the Settlement Agreement or might require a separate agreement. There would have to be some mechanism to transfer to the District the rights granted by the Agreement to the participating agencies.

The Agreement prohibits Stanford University from joining a "multi-party water district." This restriction would require interpretation.

Negotiations would determine how the District would join the Bay Area Water Users Association and whether it would supplant the membership of the agencies to which it would be selling water.

Other legislation, described in Chapter 4, would not affect the feasibility of a master contract. It would generally increase the cost of water, decrease supply availability and facilitate the transfer of water. Decreasing supply availability and permitting water transfers would promote the development of a master contract.

Recommendations

We recommend that the District take the following actions:

1. Define more precisely the potential advantages and disadvantages of a master contract in terms of water supply and supply reliability.
2. Meet with the eight water agencies in Santa Clara County that purchase all, or a portion, of their water requirements from SFWD to discuss the concept of a master contract and to obtain the approval of the agencies to the concept.
3. Meet with the Bay Area Water Users Association.
4. Meet with the San Francisco Water Department to explore Alternative 1 as the preferred alternative, define and refine issues, seek opinions on interpretations of the Raker Act and the Settlement Agreement, and identify the process for developing an agreement.
5. Address engineering, water quality and legal issues.
6. Meet with the eight water agencies and with BAWUA to review developments.

7. Meet with the San Francisco Water Department to complete the agreement process.

CHAPTER 1

INTRODUCTION

The Santa Clara Valley Water District (District) supplies surface water and groundwater to municipalities, water companies and other customers within Santa Clara County. The district obtains water from the federal Central Valley Project (CVP), the California State Water Project (SWP), and from local surface and groundwater sources.

The City and County of San Francisco, through the San Francisco Water Department (SFWD) and Hetch Hetchy Water and Power, supplies water to retail customers in the City and County of San Francisco, and to 33 water agencies in Alameda, San Mateo, and Santa Clara counties. Within Santa Clara County, SFWD supplies water to portions of the cities of Milpitas, Mountain View, Palo Alto, San Jose, Santa Clara, and Sunnyvale; and to Purissima Hills Water District and Stanford University. SFWD also supplies water to Moffett Field Naval Air Station and Agnews Developmental Center, but SFWD considers these to be direct retail customers rather than suburban purchasers.

The water that SFWD supplies in Santa Clara County derives from the Hetch Hetchy Reservoir in the Sierra Nevada and from two reservoirs in Alameda and Santa Clara counties. The water delivered in the South Bay is a blend of the supplies with about 80 percent of the water from Hetch Hetchy Reservoir.

Terminology

SFWD administers the water supply to San Francisco customers in Santa Clara County. Nevertheless, the water supply is often termed "Hetch Hetchy" because of the source of the majority of the water.

Purpose

For many years the District has felt that the Hetch Hetchy water supplies should be managed in concert with the District's supplies to maximize long-term reliability in the County. This has been emphasized by the following circumstances:

- Some retailers believe that, during the recent drought, water agencies met the District's mandatory conservation goals by excessive conservation of Hetch Hetchy supplies at the expense of District supplies.

- Hetch Hetchy supplies benefit from the District's ultra-low flush toilet and low flow showerhead programs, but SFWD does not contribute financially to them.

- Wastewater reclamation projects, sponsored by the District or District retailers, will benefit the Hetch Hetchy system at no cost to SFWD.
- Water quality programs, including groundwater quality protection and non-point source control, are funded in part by the District's water charges. Users of Hetch Hetchy water benefit from these programs, yet they do not pay for them through the water charges.
- A potential system intertie, coupled with the opportunity for SWP and CVP transfers, would add operational flexibility and long-term reliability.

The purpose of this report is to present the results of an assessment of the advantages and disadvantages of a master contract for Hetch Hetchy water in Santa Clara County and to make specific recommendations for accomplishing such a contract.

Scope

The scope of the work is as follows:

1. Summarize the provisions of the current Hetch Hetchy agreements of the Santa Clara County retailers.
2. Itemize and discuss the advantages and disadvantages of a master contract for current Hetch Hetchy users and for other users in Santa Clara County.
3. Discuss the factors that may affect a master contract, such as, wastewater reclamation, water conservation, federal Warren Act amendments, Raker Act, Central Valley Project Improvement Act, and State Water Resources Control Board draft decision D-1630.
4. Discuss the alternative strategies for establishing a master contract for Hetch Hetchy deliveries in Santa Clara County.
5. Discuss any institutional impediments to a master Hetch Hetchy contract for Santa Clara County.
6. Based on the above discussions of advantages, disadvantages and impediments, develop specific conclusions.
7. Based on the above discussions and conclusions, prepare recommendations on the feasibility, practicability, and course of action to be taken.

CHAPTER 2

EXISTING HETCH HETCHY SUPPLY

Water System

The existing water system is composed of the facilities of Hetch Hetchy Water and Power and the San Francisco Water Department (SFWD). For administrative purposes, the Hetch Hetchy system extends from the Sierra Nevada to Alameda East Portal of the Coast Range Tunnel. The portal is located in Sunol Valley in Alameda County. The SFWD system extends from Alameda East Portal through the suburban areas to, and including, the City and County of San Francisco.

The Hetch Hetchy system consists of three primary reservoirs--Hetch Hetchy Reservoir serves for water supply and power generation and Lake Eleanor and Lake Lloyd normally serve for power generation only. Water flows to the San Francisco Bay area through tunnels and pipelines.

The Sunol Valley Water Filtration Plant treats water from nearby Calaveras and San Antonio reservoirs. Water from the plant commingles with Hetch Hetchy water before flowing to the South Bay area. Of the total flow across the South Bay, about 80 percent is from Hetch Hetchy Reservoir.

Bay Division Pipelines 3 and 4 supply SFWD water to retail customers in Santa Clara County. The pipelines, which are 34 miles long, extend from Irvington Portal and south of San Francisco Bay through Santa Clara County and north through San Mateo County to Pulgas East Portal near Crystal Springs Reservoir. The pipelines are initially 78 and 96 inches in diameter, respectively. Turnouts, or meter stations, along these pipelines supply all the SFWD customers in Santa Clara County.

The safe yield, that is the yield available in a dry year, has recently been determined to be 242 million gallons per day (mgd) (271,000 acre-ft/yr) for the combined SFWD and Hetch Hetchy supply system.

Water Quality

Hetch Hetchy water is naturally low in hardness and total dissolved solids--which makes it desirable to the electronics industry. Yet this property makes the water corrosive. Lime is added to the water before it reaches the Bay Area to decrease the corrosivity, but the water distributed by SFWD is moderately corrosive. Corrosive water in contact with lead or copper plumbing may be responsible for the presence of high levels of lead or copper in drinking water.

The U.S. Environmental Protection Agency (EPA) has established action levels under its Lead and Copper Rule. Monitoring of drinking water during the past two years shows that three agencies receiving Hetch Hetchy water exceed the action level for lead. This is a concern in itself. But the corrosive water also causes high levels of metals in the effluent discharged from wastewater treatment plants. Both of these problems are a concern of the District.

SFWD has conducted treatment studies to reduce the corrosiveness of Hetch Hetchy water and is having discussions with EPA on an acceptable treatment method that would reduce corrosiveness and thus metal concentrations for both the City and the suburban purchasers.

Water Agencies

There are eight water agencies in Santa Clara County that purchase all, or a portion, of their water requirements from SFWD. Table 2-1 shows the agencies and their water purchases during the period of July 1992 through June 1993. The agencies purchased 51,220 acre-ft from SFWD.

Table 2-1. Water Purchases, FY 1993

Agency	Water purchases from			
	San Francisco		District	
	mgd	acre-ft/yr	mgd	acre-ft/yr
City of Milpitas	8.2	9,141	0.0	0
City of Mountain View	9.1	10,167	1.3	1,496
City of Palo Alto	10.8	12,119	0.0	2
Purissima Hills Water District	1.4	1,551	0.0	0
San Jose Municipal Water System	2.3	2,583	9.7	10,917
City of Santa Clara	3.9	4,371	17.4	19,452
Stanford University	2.3	2,562	0.1	126
City of Sunnyvale	7.8	8,726	11.8	13,165
Total	45.8	51,220	40.3	45,158

During this 12-month period, SFWD delivered 149,396 acre-ft to suburban purchasers. Thus, 34 percent of total sales were to purchasers in Santa Clara County. This percentage remained constant throughout the five fiscal years of 1989 to 1993. The 51,220 acre-ft of water purchases from SFWD amounts to 21 percent of the total sales by the District to its customers during the same period.

Milpitas. The city receives water through three turnouts from SFWD. Since the middle of August 1993, the city has one turnout from the District. The service areas are separated such that Hetch Hetchy water is delivered to residential areas and District water is delivered to industrial areas. The city has several wells that are for emergency use only.

Mountain View. The city has two SFWD turnouts and one District turnout. The city has four pressure zones--three of which are supplied from SFWD and one from the District. The city operates wells in its lowest pressure zone (an SFWD zone).

Palo Alto. The city receives all of its water from SFWD through five turnouts. It has wells that it can use in an emergency.

Purissima Hills Water District. The district receives all its water through two SFWD turnouts. The district has no wells.

San Jose Municipal Water System. The city has a temporary and interruptible supply from SFWD. Water from one SFWD turnout supplies the northern portion of the city. This area is physically separated from the area served by San Jose Water Company. The city operates several wells at night to supply irrigation water.

Santa Clara. The city has a temporary and interruptible supply from SFWD. The city water system has two pressure zones. Two SFWD turnouts supply the lower zone. One District turnout supplies the upper zone. The city obtains almost 70 percent of its water supply from wells.

Stanford University. The university receives water through three turnouts from SFWD. It augments its SFWD supply with wells and a local surface supply.

Sunnyvale. The city water system has three pressure zones. Six SFWD turnouts supply the lower zone. Two District turnouts supply the upper zone. The city can select the relative amount of water from each supplier that is delivered to the middle zone. The city supplements the two sources with well water.

Water Supply Contracts

As required by the Settlement Agreement (described in Chapter 4), each suburban purchaser has entered into an individual Water Supply Contract with SFWD for its water purchases. The term of each contract is 25 years, ending June 30, 2009. Except for the cities of San Jose and Santa Clara, water deliveries are permanent and non-interruptible. For San Jose and Santa Clara, water deliveries are temporary and interruptible, with at least a two-year notice before termination.

Water rates are defined in the current Schedule W-25, "Resale Use with Long Term Contract," of the Rate Schedules for Water Service issued by the Public Utilities Commission of San Francisco. The current schedule is effective July 1, 1993. It consists of 1) a service charge based on the size of the meter and 2) a charge for water delivered of $0.58 per 100 cu ft, or $252.65 per acre-foot.

Permanent Customer Status and Supply Limitations

Both San Jose and Santa Clara presently have a temporary and interruptible contract for water supply from SFWD. They both wonder if they could obtain permanent status under a master contract. If SFWD grants permanent status, would the two permanent entitlements serve to reduce the entitlements of the other retail agencies? If so, it might promote bad relations between some of the retailers.

One of the agencies with a temporary contract would seek to have its present supply limitation increased.

One of the retail agencies with a permanent contract does not want a decrease in its SFWD limitation that might result from granting permanent status to San Jose and Santa Clara.

Point of Delivery

As the water distribution systems of the retail agencies are constructed for the present delivery schemes, all but one agency expressed a desire to have Hetch Hetchy water delivered at the existing SFWD turnouts.

Regional Issues

One of the agencies asked whether a master contract is the best way to address regional water issues, and what other alternatives might be suitable to address regional planning?

Tax Refunds

In the past, Palo Alto and Purissima Hills Water District received from the District a rebate on tax revenues. They would like this continued under a master contract.

Terms of Payment

For at least one agency, the District presently requires payment of water bills within 20 days, while SFWD requires payment within 30 days. What would be the new terms for payment?

Water Conservation

There was some concern that a master contract would not solve the water conservation problems that apparently exist. One agency wondered how conservation would be handled between the two supplies.

Another agency asked, if some of the District's water conservation programs are not working under the present arrangement, why not improve water management without going to a master contract?

Water Management

Central management of potable water is a worthy idea, but one agency is not sure that District control of SFWD supply improves the situation. The District would add another level to the water bureaucracy--a "middle man" in the SFWD water supply. However, the idea is certainly worthy of further study.

It is not obvious how a master contract could improve the water supply situation more than the District's present control over its retail customers. However, the agency is open to mutually beneficial policies.

Currently, there is flexibility for at least one agency to select a portion of its water supply based on pricing.

One of the private water companies wondered whether it would be able to contract with the District for Hetch Hetchy water.

One agency felt that a master contract could be a positive for water management in Santa Clara County.

SFWD/BAWUA and District interests and positions are not always in concert (e.g., their respective positions on AB 97). The District might have to wear "two hats" in some cases and the District Board or staff might be uncomfortable in that position.

Water Quality

Hetch Hetchy water is prized for its quality. Many of the cities have zoned for industrial use the service areas receiving SFWD water. Electronics companies, which require water low in total dissolved solids, have located in these service areas. One city, on the other hand, has physically separated its service areas so that residential areas receive Hetch Hetchy water and industries receive District water. In either case, the cities would not tolerate blending SFWD water with District water before delivery to their customers.

Other agencies that receive water from both SFWD and the District state that an increased amount of District water would be undesirable in terms of water quality.

One agency, that presently does not receive District water, felt that the supply reliability associated with a District supply point would overcome the water quality problems of the District water.

Water Rates

There was general curiosity whether there would be a uniform rate between District and SFWD water. As might be expected, most agencies wanted the water rate of their primary supply to decrease.

One agency, that can use either supply in its middle pressure zone, was concerned about an average rate. The agency wants to continue to be able to choose the lower-priced water for this zone.

Water Reclamation

A master contract would apparently benefit one agency in qualifying more of the reclamation project expenses. However, this would only affect the expanded area because the first phase would replace District water in the agency's service area.

Water Supply

Several agencies wondered whether the District would provide new transmission facilities for the delivery of District water as a part of a master contract.

One of the agencies that presently obtains all its water from SFWD believed that it would be an advantage to have an additional source of supply (i.e., that the District would provide a connection with District water).

CHAPTER 4

LEGISLATION, AGREEMENTS AND REGULATIONS

This section describes documents that might affect the feasibility or the benefits of developing a master contract for Hetch Hetchy water.

Raker Act

President Woodrow Wilson signed the Raker Act into law in December 1913. The law ended the decade long battle of the City of San Francisco to acquire water rights in Yosemite National Park and adjacent Stanislaus National Forest and to build a major water supply system to replace the local water supply system owned and operated by the Spring Valley Water Company.

The Act contains 11 sections, many of which deal with the granting of rights of way to the City, granting water rights to the City, and recognizing the water rights of two irrigation districts downstream of the reservoirs.

Section 6 of the Act prohibits the grantee (the City and County of San Francisco) from ever selling or letting to any corporation (e.g., a private water company) or individual (except a municipality, municipal water district or irrigation district), the right to sell or sublet Hetch Hetchy water. The rights granted by the Act shall not be sold, assigned, or transferred to any private person, corporation, or association.

SFWD sells water to California Water Service Company (which is a corporation) in San Mateo County. This selling is justified on the basis that the total annual sales are less than the yield of the local SFWD water supplies. Thus, the water sold need not have come from the Hetch Hetchy water supply system.

The term "municipal water district," as used in Section 6, is not defined. Thus, there is no specific relationship between it and the numerous types of "water districts" permitted by the laws of California.

Settlement Agreement

The full title of this agreement is "Settlement Agreement and Master Water Sales Contract between the City and County of San Francisco and Certain Suburban Purchasers in San Mateo County, Santa Clara County and Alameda County." There are 30 named "Certain Suburban Purchasers."

The purpose of the Settlement Agreement is to document "the understanding which the City and County of San Francisco (the City) and certain of its suburban water purchasers have reached regarding the settlement of [a] certain civil action." The civil action was a suit against the City brought by 15 of the suburban purchasers.

The suit was initially brought in 1974 when the City decided to increase suburban water rates by 20.5 percent while increasing in-City rates by 14.5 percent. In 1976, the suburban purchasers obtained another preliminary injunction against the City, barring the City from instituting a "lifeline" rate, the effect of which was to lower rates disproportionately to in-City water users. In 1978, the suburban purchasers filed an additional complaint against the historic method by which the City charged suburban purchasers for water.

"This Agreement is also intended to serve as the document governing the rights and obligations of the City and these and certain other suburban water purchasers as a group, and shall be incorporated by reference into individual water supply contracts ... between the City and each such purchaser."

The Agreement took effect after all the suburban purchasers approved the Agreement and entered into individual contracts with the City (August 1984).

The terms of the Agreement and the individual contracts are 25 years, ending June 30, 2009.

The Agreement contains 9 articles, as follows:

Article I.	Parties
Article II.	Effective Date, Disposition of Action, Release of past Monetary Claims, Reservation of "Co-Grantee" Claims, and Dismissal of Claim Re Intra-City Fund Transfers
Article III.	Term
Article IV.	Suburban Revenue Requirement
Article V.	Integration of Suburban Revenue Requirement with SFWD Budget Development and Rate Adjustments
Article VI.	Accounting Procedures; Compliance Audit
Article VII.	Water Supply
Article VIII.	Other Agreements of the Parties
Article IX.	Implementation and Special Provisions Affecting Certain Suburban Purchasers

The Agreement also includes an appendix consisting of 15 divisions.

Articles IV, V and VI deal with the allocation of costs and the development of water rates for the City and the suburban purchasers.

Article VII states (Section 7.01) that the "maximum annual average metered supply of water" (the Supply Assurance) to the suburban purchasers shall be limited to 184 million gallons per day (mgd) [206,000 acre-ft]. It also states that the City "agrees not to sell water to any resale or non-resale purchaser which is located outside the City's geographical limits and which was not purchasing water from the City on June 30, 1983, deliveries to which, either individually or in the aggregate, would impair the City's ability to fulfill the Supply Assurance."

In Section 7.05 "each suburban purchaser also agrees that no water furnished by the City to it shall be delivered by it outside the service area described in an exhibit to its Individual Contract, and further agrees not to deliver any water outside the boundary of its service area by substituting therefor water purchased from the City" unless agreed to by the City.

Article VII also states (Section 7.06) that the "Agreement is not for the benefit of any person, corporation, or other entity, other than the parties [thereto]." It also states that "nothing in this Section shall prevent any suburban purchaser (except ... Stanford) from entering into a joint powers agreement or a municipal or multi-party water district with any other suburban purchaser to exercise the rights and obligations granted ... hereunder." That is, the Agreement permits suburban purchasers (except Stanford) to join to exercise the rights and obligations granted by the Agreement.

Article IX (Section 9.03) acknowledges that the City has in the past provided water to the cities of San Jose and Santa Clara on a "temporary and limited basis." It permits the City to exercise one of three options before July 1, 1985:

1. Take on the two cities as permanent customers and include the water delivered to the two cities within the Supply Assurance.
2. Sell water on a temporary and interruptible basis and not include the water delivered within the Supply Assurance,
3. Terminate its water service to the two cities.

The City elected the second option--to sell water on a temporary and interruptible basis.

Exhibit J ("Definitions and Formulas for Calculating Usage Rates") to the Settlement Agreement defines in Section C that "City ultimate base usage" shall be deemed to equal 101 mgd. Thus, the ultimate combined demand on the overall water supply system is anticipated to be 285 mgd (the Supply Assurance of 184 mgd plus 101 mgd, or 319,000 acre-ft). Because the safe yield of Hetch Hetchy and local supplies (242 mgd, or 271,000 acre-ft) is currently less than the ultimate combined demand, any new customer cannot be entitled to permanent water deliveries.

Warren Act Amendment

The Reclamation States Emergency Drought Relief Act of 1991 (Public Law 102-250) was passed into law on March 5, 1992. Section 305 addresses excess storage capacity and carrying capacity. The section states that "the Secretary [of the Interior] is authorized to enter into contracts with municipalities, public water districts and agencies ... for the ... carriage of nonproject water for domestic, municipal, fish and wildlife, industrial, and other beneficial purposes using any facilities associated with the Central Valley Project ...."

Thus, the act removes the restriction on moving nonproject water through the federal CVP facilities for municipal and industrial purposes. This change provides options to both SFWD and the District for augmenting their water supplies during droughts.

Central Valley Project Improvement Act

The Central Valley Project Improvement Act is Title XXXIV of the Reclamation Projects Authorization and Adjustment Act of 1992 (Public Law 102-575). The purposes of Title XXXIV are as follows:

1. To protect, restore, and enhance fish, wildlife, and associated habitats in the Central Valley and Trinity river basins of California;

2. To address impacts of the Central Valley Project on fish, wildlife and associated habitats;

3. To improve the operational flexibility of the Central Valley Project;

4. To increase water-related benefits provided by the Central Valley Project to the State of California through expanded use of voluntary water transfers and improved water conservation;

5. To contribute to the State of California's interim and long-term efforts to protect the San Francisco Bay/Sacramento-San Joaquin Delta Estuary; and

6. To achieve a reasonable balance among competing demands for use of Central Valley Project water, including the requirements of fish and wildlife, agricultural, municipal, and industrial and power contractors.

The environment is the main beneficiary of the act. The improvement act amends the original CVP Act of 1937 and specifically names mitigation, protection, restoration and enhancement of fish and wildlife as a project purpose.

The act establishes a $50 million annual habitat restoration fund and instructs the US Bureau of Reclamation to allocate annually 800,000 acre-feet (600,000 acre-feet in a dry year) of water to the environment.

Fees for CVP water would increase, up to a $12 per acre-foot maximum for urban contractors. In addition, a $25 per acre-foot annual charge could be imposed on CVP water sold or transferred to non-CVP entities.

The act also directs the Secretary of the Interior to develop, within three years, a plan to increase the yield of the CVP. Measures to increase water yield include

- improvements in, modifications of, or additions to, CVP facilities;
- water conservation;
- transfers;
- conjunctive use;
- land fallowing;
- purchase of water; and
- direct purchase of water rights.

Another significant shift in the federal CVP law is the clause allowing the voluntary transfer of water--including that used by pre-CVP water rights holders--outside the service area of the individual or district. Urban water suppliers and others can purchase water from individuals or districts who receive CVP water. Under terms of the act, all individuals and districts (including water rights holders and exchange contractors) can sell CVP water to any other entity for any purpose recognized as reasonable and beneficial under state law. The Secretary of the Interior is required to approve each transfer. If the quantity of water to be transferred exceeds 20 percent of the water under contract, the contracting irrigation district must approve the transaction.

All transfers for uses outside the CVP service area are subject to a right of first refusal by entities within the CVP service area. Thus, any potential transfers negotiated by SFWD would be subject to the approval of the District. A master contract between SFWD and the District would facilitate the transfer of CVP water to SFWD--possibly through the District's water transmission facilities.

Municipal water districts may be affected by environmental water reallocation, contract renewal restrictions and transfer provisions--which could reduce the reliability and increase the cost of their water supplies.

The act requires the completion of an extensive Environmental Impact Statement (EIS). The EIS will analyze the direct and indirect effects of the fish, wildlife and habitat restoration actions outlined in the act. It also will examine the potential renewal of all CVP contracts. The EIS is scheduled to be completed by the end of 1995.

Rules and regulations (primarily by the Bureau of Reclamation) will more clearly outline the long-term effects of the CVP act.

Assembly Bill 97

This bill on water transfers was introduced in the state Assembly in 1993 and was continued until 1994 in a Senate committee. Other water transfer bills may also be introduced in 1994.

Existing law authorizes every local or regional public agency authorized to serve water to the inhabitants of the agency to transfer, for use outside the agency, water that is surplus to the needs of the collective water users of the agency.

This bill would authorize those public agencies to transfer, for use outside the agency, water, the use of which is voluntarily foregone by an individual water user of the agency.

The bill would set forth provisions relating to the transfer of groundwater and water appropriated pursuant to the Water Commission Act and the Water Code. The bill would authorize a water supplier to establish a water user-initiated program to enable its water users to transfer all or a portion of their water allocation for use outside the water supplier's service area. The bill would authorize a water user receiving water from a water supplier to submit to the water supplier a request to transfer all or a portion of the user's allocation of water for use outside the service area of the water supplier. The bill would require the water supplier either to approve or to deny the transfer request. The bill would authorize the possessor of the water right to approve or deny the transfer, or approve the transfer subject to conditions. The bill would authorize the water supplier and the water user to enter into a specified water transfer agreement and would authorize the water user to transfer water pursuant to other provisions of law.

This bill probably has no bearing on a master contract. Other bills on water transfers are being considered by the Legislature.

Water Right Decision 1630

Draft Decision 1630 of the State Water Resources Control Board (State Board) is the result of a six-year process that set out to establish terms and conditions for interim protection of public trust uses of the San Francisco Bay/Sacramento-San Joaquin Delta Estuary. The State Board issued a draft decision on December 9, 1992, with comments accepted through February 16, 1993.

On April 1, 1993, Governor Pete Wilson requested the State Board to stop work on Decision 1630 and focus instead on a long-term Delta plan. He said that his request in early 1992 for interim standards to protect the Delta became moot when the federal fisheries agencies imposed limits on Delta operations under the Endangered Species Act to protect winter-run salmon and Delta smelt.

These interim standards were to be supplanted by a long-term, comprehensive Delta plan that will be developed over the next three years by the newly-formed Bay Delta Oversight Council.

On April 22, 1993, the State Board released the final draft decision and announced its intent to pursue the development of a long-term water right decision.

Even though the State Board has not adopted Decision 1630 as an interim measure, the provisions of the decision are described below because they might reappear in other legislation or regulations.

The draft decision sets forth the state's short-term plan for addressing environmental decline in the Sacramento-San Joaquin River Delta. The decision requires both urban and agricultural water users to give up water and money over the next five years to stabilize public trust resources such as fisheries. Although the State Water Project and federal Central Valley Project would shoulder much of the decision's obligations, the decision would affect local projects that divert water upstream of the Delta, pump directly from the Delta, or move water around the Delta. Key components of the standards are restrictions on exports that would cost water users an average of 800,000 acre-feet per year, depending on the type of water year, and a $60 million annual mitigation fund to be paid for by Delta water exporters and in-basin diverters.

This decision has not been implemented by the State Board and probably has no bearing on a master contract.

Federal Bay-Delta Standards

The Environmental Protection Agency (EPA) released proposed Bay-Delta water quality standards on December 15, 1993. Citing its authority under the Clean Water Act (CWA), EPA proposed the following:

- The SWP and the CVP be operated to maintain a salinity level of two parts per thousand at three locations in Suisun Bay from February to June,
- A chinook salmon smolt survival index be established to protect juvenile chinook salmon migrating through the Delta, and
- A salinity standard based on electrical conductivity be set to protect striped bass spawning areas on the lower San Joaquin River.

The U.S. Fish and Wildlife Service (FWS):

- Said that it would propose that the Sacramento splittail, a fish that lives in the Delta, be listed as "threatened" under the federal Endangered Species Act,
- Identified new critical habitat for the Delta smelt, another threatened species, and
- Announced preliminary plans for use of the 800,000 acre-ft of CVP yield dedicated to the environment under the 1992 CVP Improvement Act.

The National Marine Fisheries Service announced that it would upgrade the "threatened" Sacramento River winter-run chinook salmon to "endangered," because of continuing low numbers of adult salmon returning to spawn.

The federal agencies estimate that the water supply impacts of the federal proposals, including EPA's criteria, are 500,000 acre ft per yr on average, and up to 1.1 million acre ft per yr in critically dry years. The FWS said that a portion of the 800,000 acre ft allocated for fish and wildlife uses under the Central Valley Project Improvement Act would be used to meet the federal proposals as well as existing Endangered Species Act requirements.

The proposed federal standards could require an estimated additional cut in water deliveries by way of the SWP and CVP of nine percent in an average year and 21 percent in drought years, but those numbers could be halved if the State Board chooses to have all Bay-Delta water users contribute. The federal agencies estimated the cost of the standards to the state at $450 million per year.

EPA intends to develop final federal standards rapidly, but EPA does not have any authority under the CWA to enforce these standards. The federal agencies want the State Board to administer the standards.

SFWD Connection to South Bay Aqueduct

In 1990, SFWD entered into an agreement with the State of California for a connection to the South Bay Aqueduct (SBA) of the State Water Project. The connection has a capacity of 75 cubic feet per second (54,300 acre-ft/yr). SFWD may take water only when downstream SBA contractors are not using their maximum entitlements and there is excess capacity in the aqueduct. Water discharged from the connection flows down a creek to San Antonio Reservoir.

Water Conservation

In December 1991, the District joined more than 120 other water suppliers, public interest groups and other interested parties in signing a "Memorandum of Understanding Regarding Urban Water Conservation in California." All signatories to this statewide accord agreed to implement 16 water conservation Best Management Practices following a specific three-year schedule. Full District implementation over a 10-year period is projected to reduce water demand by 32,000 acre-ft.

The District has completed the following Best Management Practices:

- Dispersed public information on ultra-low-flush toilets
- Metered all municipal and industrial water users
- Developed a Model Water Efficient Landscape Ordinance
- Encouraged water agencies to develop conservation pricing in water rates
- Prohibited certain water waste practices
- Hired a water conservation coordinator

This fiscal year (1993-94), the District is acting on the following Best Management Practices:

- Residential water audits
- Plumbing retrofits
- Public information
- School programs
- Commercial and industrial conservation
- Financial incentives
- Ultra-low-flush toilet retrofits

During the recent drought, SFWD and the District independently established mandatory drought water conservation programs based on the status of their own supply sources. Table 4-3 summarizes these programs.

Table 4-1. Mandatory Drought Water Conservation Programs

SFWD		District	
Period	Drought water conservation regulation	Period	Drought water conservation regulation
Jul 1987 - Jun 1988	Voluntary		
Jul 1988 - Jun 1989	Mandatory 25% (a)		
Jul 1989 - Jun 1990	None	Apr - Oct 1989	Mandatory 25%
Jul 1990 - Jun 1991	Mandatory 25% (a)	Apr - Oct 1990	Mandatory 20%
Jul 1991 - Jun 1992	Mandatory 25% (a)	Apr - Dec 1991	Mandatory 25%
Jul 1992 - Mar 1993	Mandatory 25% (a)	Apr - Dec 1992	Mandatory 15%

(a) Overall average value. Program consisted of 10% reduction in inside water use and 60% reduction in outside water use.

The periods shown in the table for the two agencies do not directly correspond, but they are arranged to permit a general comparison. Clearly, the programs are different and the District regulations would not have achieved the desired results of the SFWD program.

Water Reclamation

On July 13, 1993, the District Board of Directors adopted Resolution no. 93-55 "Policy on Nonpotable Water Reclamation." The policy states that the District "shall consider reclaimed water a resource for supplementing the District's current and future water supplies according to its on-going water supply planning." The District will encourage reclaimed water use where it is financially and technically feasible. It will support nonpotable reclaimed water projects as supplemental sources of supply and will participate in Bay Area regional studies of reclaimed water as a supplemental source.

The District intends to provide financial assistance to qualifying reclamation projects.

The District has had the opportunity to participate in several water reclamation projects. Some of these projects have sought to reclaim treated wastewater being discharged to San Francisco Bay. Because the areas of use have generally been near the bay, they have been located within the service areas, or pressure zones, served with SFWD water. The reduction in potable water demand has accrued, or would accrue, to SFWD. Thus, the District has been faced with providing financial assistance to water reclamation projects that would not benefit the District by reducing future water demands.

CHAPTER 5

ALTERNATIVE STRATEGIES FOR MASTER CONTRACT

Two alternative strategies for a master contract are formulated. Under both alternatives, the District would act as a wholesaler of Hetch Hetchy water to the eight water agencies presently receiving water from SFWD within Santa Clara County.

Because of the water quality concerns of the water agencies (i.e., blending District water with Hetch Hetchy water), the present SFWD transmission system would continue to deliver water to the agencies. SFWD would continue to read its water meters, but would bill the District for the amounts used by the agencies. The District would bill the agencies.

A new agreement with SFWD would define the District's service area for delivery of Hetch Hetchy water. Ideally, the service area would encompass the entire District. Thus, the District would have the flexibility of using Hetch Hetchy supply to its best advantage, which may include wheeling it through SWP, or CVP, facilities. The District would accept the Hetch Hetchy water into its own raw, or treated, water supply systems for direct delivery or groundwater recharge.

The scenarios and major issues of two alternative strategies for a master contract are described below.

Alternative 1--District as Wholesaler but not SFWD Customer

Scenario. The District and SFWD would have an agreement that would grant to the District delivery of water equal to the total permanent delivery entitlements of the six water agencies with permanent supplies. The agreement would also grant the District temporary delivery of water equal to the amounts granted to San Jose and Santa Clara on a temporary and interruptible basis.

Major Issues. The major issues related to the legislation and agreements described in Chapter 4 are explained below.

Raker Act. The whole concept of a master contract hinges on the Raker Act permitting such an arrangement. It could be argued that the role of the District would be no different from that of other water districts presently supplied by SFWD.

Settlement Agreement. A master contract might require a revision to the Settlement Agreement or might require a separate agreement. There would have to be some mechanism to transfer to the District the rights granted by the Agreement to the participating agencies.

As noted in Chapter 4, Section 7.06 of the Agreement prohibits Stanford University from joining a "multi-party water district." This restriction would require interpretation.

Bay Area Water Users Association. Negotiations would determine how the District would join the association and whether it would supplant the membership of the agencies to which it would be selling water.

Other Legislation. The other legislation described in Chapter 4 would not affect the feasibility of a master contract. It would generally increase the cost of water, decrease supply availability and facilitate the transfer of water. Decreasing supply availability and permitting water transfers would promote the development of a master contract.

Alternative 2--District as Wholesaler and SFWD Customer

Scenario. This scenario would be similar to Alternative 1, except that the District would also receive water from SFWD through one or more turnouts on a temporary and interruptible basis.

Major Issues. The major issues would be similar to those described for Alternative 1.

CHAPTER 6

CONCLUSIONS

These conclusions are drawn from the contents of Chapters 2 through 5.

Water Quality

The water distributed by SFWD in the South Bay is low in hardness and total dissolved solids--which makes it moderately corrosive. Three agencies receiving Hetch Hetchy water have exceeded EPA action levels for lead. The corrosive water may cause high levels of metals in the effluent discharged from wastewater treatment plants. Both of these problems are a concern of the District.

SFWD has conducted treatment studies to reduce the corrosiveness of Hetch Hetchy water and is having discussions with EPA on an acceptable treatment method that would reduce corrosiveness and thus metal concentrations for both the City and the suburban purchasers. Under the present circumstances, the District would accept Hetch Hetchy water into its raw water supply system rather than its treated water supply system.

Opinions of Water Agencies

The water agencies in Santa Clara County that presently purchase water from SFWD are favorable toward doing business with the District.

The major concerns are water quality and the points of delivery. Several of the water agencies have obligations to supply Hetch Hetchy water to their customers. They would not accept a substitute or blend of water. Furthermore, since the water distribution systems of the agencies are constructed for the present delivery schemes, all but one agency expressed a desire to have Hetch Hetchy water delivered at the existing SFWD turnouts.

The agencies are not clear on the effect of the master contract on their membership and participation in the Bay Area Water Users Association.

There is a general concern about the process for determining the water rates for SFWD water under a master contract, as the District has no methodology comparable to that contained in the Settlement Agreement.

During a drought situation, the District would still have to coordinate its mandatory water conservation program with that of SFWD.

Raker Act

It is our opinion that the District is a municipal water district as the act uses the term. Thus, the District could resell Hetch Hetchy water.

The yield of local SFWD supplies limits sales of Hetch Hetchy water to corporations (e.g., private water companies). Thus, the District might not be free to sell Hetch Hetchy water to San Jose Water Company and Great Oaks Water Company. This might restrict the use of Hetch Hetchy water for distribution in the District's treated water system or for recharging the groundwater basin.

Settlement Agreement

The District could become subject to provisions of the Settlement Agreement in several ways--by becoming a signatory to a modified Agreement subject to the approval of all the suburban water purchasers or by entering into a separate agreement with SFWD.

The City agrees in the Settlement Agreement that it will not sell water outside the City limits to any purchaser that was not purchasing water from the City on June 30, 1983, if the sales would impair the City's ability to fulfill the Supply Assurance of 184 mgd. Since the safe yield of Hetch Hetchy and local supplies is currently less than the Supply Assurance plus City demand, it is highly unlikely that SFWD will make additional commitments for water deliveries.

The Water Supply Contract of each suburban purchaser prohibits the purchaser from delivering SFWD water outside the service area designated in its contract. Thus, unless the eight water agencies in Santa Clara County that purchase SFWD water are released from the obligations of the Settlement Agreement, they could not deliver Hetch Hetchy water to the District if it were to be used outside the designated service areas.

The Settlement Agreement appears to prohibit Stanford University from joining a multi-party water district. It is not clear if this restriction would prohibit Stanford from entering into a joint agreement with the District to facilitate a master contract with SFWD.

In an agreement for Hetch Hetchy water, the District would have to define its service area for use of the purchased water. Thus, the District would state whether the limits are the combined limits of the eight agencies, or the whole county, or some other area.

Warren Act Amendment

The Reclamation States Emergency Drought Relief Act of 1991 removes the restriction on moving nonproject water through CVP facilities. This change provides options to both SFWD and the District for augmenting their water supplies during droughts.

Central Valley Project Improvement Act

This act permits the transfer of CVP water to a non-CVP water agency. With District assistance, SFWD could benefit from this new provision. This act will also increase the cost of CVP water and decrease the amount of water available for water supply--even to existing contractors, such as the District.

Assembly Bill 97

This bill could facilitate the transfer of SWP water between agencies. This could benefit both SFWD and the District. It also could hinder the District if the request to transfer is from a District customer to transfer District water to another agency outside the District's service area.

This bill probably has no bearing on a master contract.

Water Right Decision 1630

The provisions of the final draft decision would decrease the amount of water available for water supply and would increase the cost of water.

This decision probably has no bearing on a master contract.

Federal Bay-Delta Standards

The federal standards will reduce imported supplies to the District and will require additional water conservation, water transfers, or additional imported supplies.

These standards probably have no bearing on a master contract.

SFWD/District Interconnection

A connection between the SFWD and District water systems would be mutually beneficial. Transmission mains of both agencies are in closest proximity in Milpitas. The District's Milpitas Pipeline conveys water from the Penitencia Water Treatment Plant to storage and booster pumping facilities west of Gibraltar Court in Milpitas. The pipeline has an additional 40 mgd capacity to convey water to, or receive water from, the SFWD Bay Division Pipelines 3 and 4 that are several hundred yards from the present terminus. The two agencies have studied and discussed a connection at this location.

Advantages and Disadvantages

Summarized below are potential advantages and disadvantages of a master contract.

Advantages

- Communications between Wholesaler and Retailer - Several of the retail agencies cite ease of communication with the District as an advantage of the District's being their wholesaler.

- Flexibility - The additional source of water would enhance the District's flexibility in source selection.

- Water Conservation and Water Reclamation - The District would help finance water conservation and water reclamation programs if it could receive Hetch Hetchy water that would become available through these programs.

- Water Management - A master contract would give the District control over all import water in the County.

  Water retailers would not have to do business with two wholesalers.

  A master contract between SFWD and the District would facilitate transfer of water through CVP and District facilities to the SFWD service area.

- Water Supply Reliability - The District's ability to manage all supplies, including Hetch Hetchy water that would become available through water conservation and water reclamation programs, would enhance the reliability of its water supplies.

Disadvantages

- Settlement Agreement - Negotiations with SFWD for a master contract might re-open other provisions of the Settlement Agreement.

- Water Management - Several agencies believe that a master contract would add another layer of bureaucracy to the SFWD water supply contracts.

- Water Quality - Because several of the water agencies have obligations to supply Hetch Hetchy water to their customers, they would not accept the addition of, or a blend of, water from the District.

- Water Rates - Requirements of the Settlement Agreement govern SFWD water rates. There are no similar requirements for determining District water rates. One agency wondered how the retailers would be protected against "unfair" rates.

- Water Supply Reliability - An agency that presently receives water from both the District and SFWD believed that, with a master contract and District control, Hetch Hetchy water would no longer be an "independent" supply to its water system.

Feasibility

It is our opinion that a master contract for Hetch Hetchy water in Santa Clara County is a feasible concept. The opinions of the retail water agencies and current legislation, agreements and regulations do not suggest opposition to such a contract.

CHAPTER 7

RECOMMENDATIONS

We recommend that the District take the following actions:

1. Define more precisely the potential advantages and disadvantages of a master contract in terms of water supply and supply reliability.

2. Meet with the eight water agencies in Santa Clara County that purchase all, or a portion, of their water requirements from SFWD.

   Discuss the following items:
      An overview of a master contract
      Advantages of a master contract
      Agency concerns
      Approval process

   Obtain the approval of the agencies to the master contract concept.

3. Meet with the Bay Area Water Users Association.

   Discuss the following items:
      An overview of a master contract
      Advantages of a master contract
      Association concerns
      Approval process

4. Meet with the San Francisco Water Department.

   Explore Alternative 1 as the preferred alternative
   Define and refine issues
   Seek opinions on interpretations of the Raker Act and the Settlement Agreement
   Identify the process for developing an agreement

5. Address engineering, water quality and legal issues.

6. Meet with the eight water agencies and with BAWUA to review developments.

7. Meet with the San Francisco Water Department to complete the agreement process.

APPENDIX A

REFERENCES

REFERENCES

1. American Water Works Association, "California Water Users Critical of Federal Demands," *Water Week*, December 20, 1993.

2. Association of California Water Agencies, "Governor Wilson Tells State Board to Stop Work on Delta Interim Standards," *ACWA News*, April 12, 1993.

3. Association of California Water Agencies, "SWRCB Decision 1630--Preliminary Analysis," January 27, 1993.

4. McClurg, Sue, "Changes in the Central Valley Project," *Western Water*, January/February 1993.

5. San Francisco Water Department, Rate Schedules for Water Service, July 1, 1993.

6. Santa Clara Valley Water District, "Executive Summary on Implementation of best Management Practices," July 29, 1993.

7. Santa Clara Valley Water District, "Policy on Nonpotable Water Reclamation," Resolution no. 93-55, July 13, 1993.

8. "Settlement Agreement and Master Water Sales Contract between the City and County of San Francisco and Certain Suburban Purchasers in San Mateo County, Santa Clara County and Alameda County," August 1984.

9. State of California, Assembly Bill 97, June 29, 1993.

10. State Water Resources Control Board, "Draft Water Right Decision 1630--San Francisco Bay/Sacramento - San Joaquin Delta Estuary," April 1993.

11. United States, "Raker Act," Public Law 63-41, December 13, 1913.

12. United States, "Reclamation Projects Authorization and Adjustment Act of 1992," Public Law 102-575, October 30, 1992.

13. United States, "Reclamation States Emergency Drought Relief Act of 1991," Public Law 102-250, March 5, 1992.

14. U. S. Environmental Protection Agency, "Fact Sheet--Proposed U.S. EPA Water Quality Standards," December 1993.

15. Water Education Foundation, "EPA Releases Proposed Bay-Delta Standards," *Western Water*, January/February 1994.

16. Water Education Foundation, "Interim Bay-Delta Standards Dropped; Future of BDOC Unknown," *Western Water*, May/June 1993.

APPENDIX B

ABBREVIATIONS

ABBREVIATIONS

AB	Assembly Bill
cfs	cubic feet per second
CVP	Central Valley Project
CWA	Clean Water Act
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
ft	feet
FY	fiscal year
mgd	million gallons per day
SFWD	San Francisco Water Department
SWP	State Water Project
yr	year

SANTA CLARA VALLEY
WATER DISTRICT

94 MAR 29 A 9: 19